

**The Secretary of Defense Performance Based Logistics Awards Program for
Excellence in Performance Based Logistics
Summary of Criteria Accomplishments - Section 2**

Mission Success: The Cockpit Displays Group Performance Based Logistics (PBL) initiative improves component availability and response time to the Navy warfighter while reducing the cost of ownership. For an aging system with systemic obsolescence problems, this means a redesign of the supply chain management and acquisition strategy. The Cockpit Displays Group PBL is an innovative program that manages the supply chain, reliability and supportability, configuration management, obsolescence and transportation, and results demonstrated that the program consistently exceeds customer expectations. By employing "Lean Six Sigma" principles, this PBL has increased supply availability from less than 60% to 100%, decreased delivery response time from 60-90 days to 3-5 days and eliminated backordered fleet requisitions. It also embodies the intent of "public-private" partnerships by Rockwell Collins Display Systems (RCDS) and NAVAIR Depots Jacksonville and North Island teaming to maximize efficiencies by implementing lean manufacturing processes.

Weapon System Availability: The Navy's F/A-18 Cockpit Displays Group has historically presented support challenges due to the age of the systems and systemic obsolescence problems. This resulted in a steady decline in component availability, at one time causing the displays to be ranked as the #3 aircraft degrader. To improve support, the Cockpit Displays Team realized that a creative acquisition strategy was needed to maximize supply chain management, as well as leverage the skills of the NAVAIR Depot workforce. In 2000, the Navy/RCDS PBL Team was formed and began developing a program to improve component availability. The team included government and contractor professionals from all logistics disciplines. The team redesigned the supply chain management processes by applying the principles of "Lean Six Sigma." Prior to

PBL, component availability was less than 60% and Navy customer backordered requisitions totaled 583. As a direct result of this team's efforts, component availability is now up to 100% and has remained at 100% since September 2005. The average delivery response time has been drastically reduced from approximately 60-90 days to 3-5 days. In addition, because of the joint implementation of Lean manufacturing by both the Navy organic depots and RCDS, Repair Turn Around Time (RTAT) has been reduced from 180 days to 20-22 days.

Life Cycle Cost Management: Declining support budgets and low readiness were the impetus behind the Cockpit Displays Group PBL initiative. Support costs were escalating as reliability and availability were declining. For example, due to obsolescence problems and diminishing manufacturing sources, RCDS could no longer manufacture the "Night Attack" version of the Digital Display Indicator (DDI). The PBL provided a way of continuing to support the existing Display Group within the existing budget. The PBL strategy streamlined the supply chain and reduced the logistics footprint, thereby eliminating the need for new "Night Attack" DDI spares. The team is now working to expand the contract to include the Displays for the AH-1W helicopter and Foreign Military Sales customers. Including other programs lowers the total cost of ownership further through the "re-use" of existing PBL program facilities.

Government/Industry Teaming and Contracting Mechanisms: The contract is a Navy Working Capital Fund (NWCF) FAR Part 15, fifteen year, firm-fixed-price requirements contract, with a five-year base period and two five-year options. The contract, awarded in September 2003, was negotiated at \$360 million dollars over fifteen years. Along with contractual availability guarantees, the firm fixed price inherently incentivizes RCDS to improve reliability in order to minimize depot level repairs. This total support package enabled the Navy

to realize a savings/cost avoidance of \$71M in the Navy Working Capital Fund (NWCF) over the fifteen year period, and will also realize an additional saving/cost avoidance in excess of \$20M in other areas, such as Program Related Logistics (OM&N funding), Naval Air Technical Data and Engineering Service Command (fleet reps) and manpower budgets.

Public-Private Partnering To satisfy the requirements of Title 10 USC Core Logistic Capability requirements, the Cockpit Displays Program implemented the DoD public-private partnering agreement. RCDS signed commercial services agreements (CSA) with NAVAIR Depots Jacksonville and North Island. The organic depots perform approximately 66% of the repairs. RCDS, as lead, provides the depots with logistics support. The benefit of this public-private partnership is that it combines the “best of commercial processes and practices” with the organic depots’ extensive maintenance capability. Improvements already implemented include eliminating unnecessary repair/manufacturing processes through Lean manufacturing principles. These changes resulted in a 50% reduction in depot induction time, reduction in test bench constraints, and the establishment of visual controls to identify production priorities. Through the partnership with RCDS, the NAVAIR Depots have also gained additional repair capabilities. For example, through a capital investment from RCDS, Cathode Ray Tube (CRT) sealant capability was added to NAVAIR Depot Jacksonville to cut down the repair turn around time of the Combiner Assembly used in the Heads Up Display. In another example, RCDS provided training, certification and equipment to NAVAIR Depot North Island to manufacture CRT Kroma Filters as a second source to support RCDS and NAVAIR Depot North Island CRT production lines. Prior to the PBI contract, only the OEM could perform these processes.

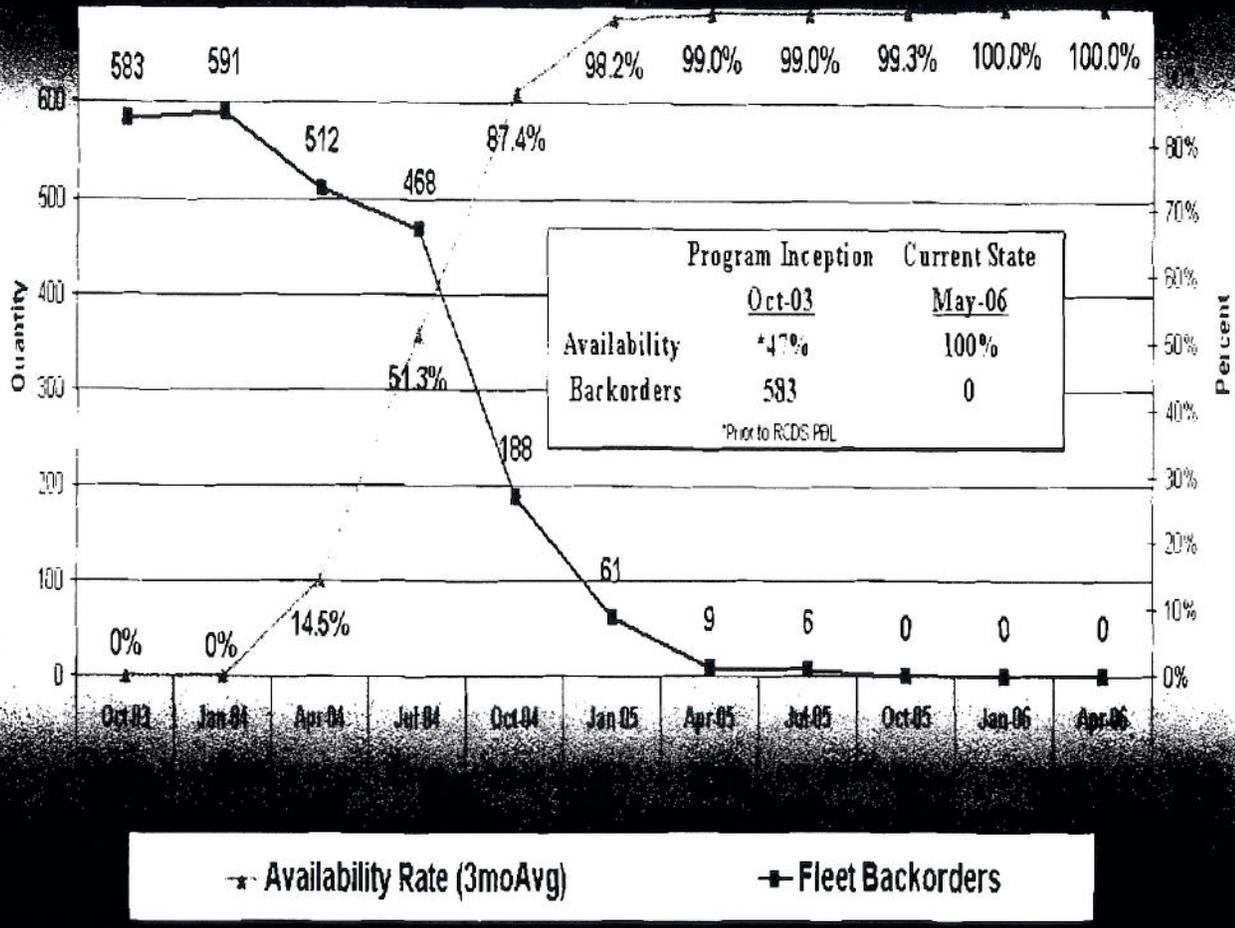
Systems Engineering Approach: The contract's approach to configuration management and engineering change proposals has united NAVAIR and NAVSUP into a cohesive team. This approach guarantees that the Navy will determine Class II engineering change classification within 30 days. Prior to PBL, classification took 3 – 6 months. This reduction in response time helps to incentivize RCDS to introduce changes that will increase reliability and reduce long-range costs. The PBL program's streamlined configuration management process has allowed for the incorporation of various reliability improvements since program start. In addition, this partnership ensures that systems engineering principles are utilized during the repair process. A prime example of this was when the Navy test bench identified a material piece part that was inherently designed as 'never fail'. The Contractor's technical knowledge of the piece part, which was conveyed to the government, not only mitigated the need for this particular piece part but will drive an update to field and depot level test equipment.

Footprint Reduction: The contract's primary metrics are Supply Availability and Delivery Response Time. The contract contained a transition period of 12 months where RCDS was not held to the Supply Availability metric. Five months into the transition period 583 fleet backordered requisitions were transferred to RCDS. RCDS reduced backorders to 188 within the next 6 months and eliminated them in the next 12 months. This was the first time the Display Group had no outstanding requisitions since fleet introduction. Supply Availability has remained at 100% since September 2005. This effort has directly resulted in a streamlined supply chain and in a reduction in logistics footprint. Of equal significance are the cycle time reductions which have allowed for a smaller pipeline and reduced retail inventory. This is particularly noteworthy in a time of increased carrier operations.

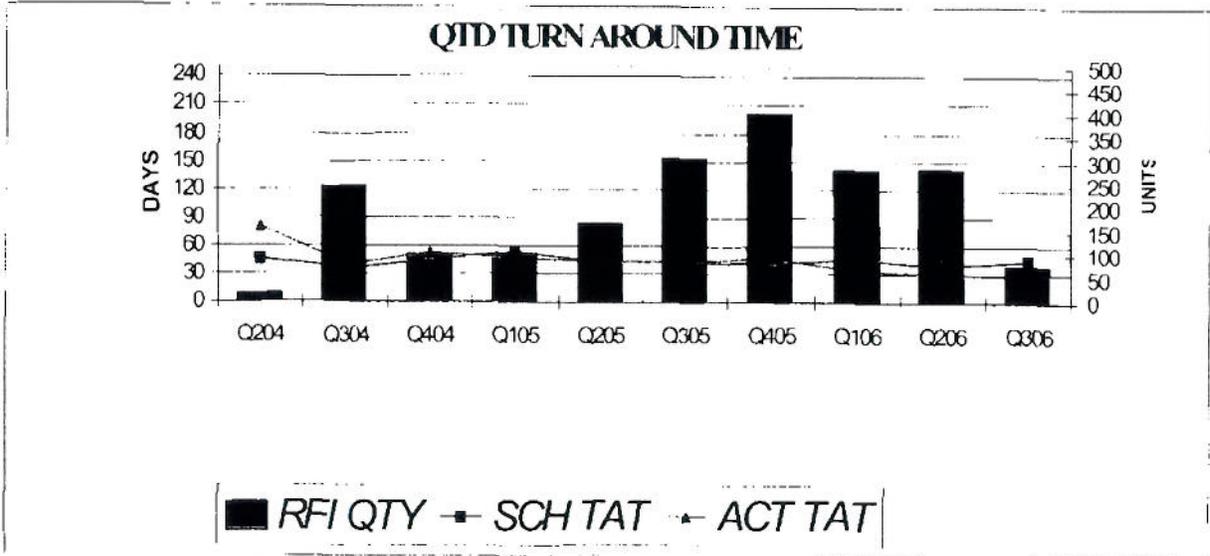
Obsolescence Management: This all-inclusive, “no excuses” contract obligates RCDS to resolve obsolescence issues at no additional cost in order to meet contractual performance metrics. RCDS’s obsolescence management process includes qualifying new sources for obsolete parts, initiating life of type buys, and recommending material/component design changes. A close relationship with the NAVAIR Basic Design Engineer (BDE) ensures RCDS quickly receives approval for implementing Class II ECPs. Since contract award, RCDS has initiated 20 Class II ECP(s) due to obsolescence, all of which were due to “pure” obsolescence issues where parts or processes no longer existed.

Reliability, Maintainability, and Supportability Improvements: The contract inherently incentivizes RCDS to improve these elements to maximize profit. Since contract award, demand has decreased by 25%. RCDS has also taken on a management challenge to eliminate end item repairable returns during the second five-year option period. Since contract award, repair line improvements have been introduced: NAVAIR Depot North Island’s CRT repair line was reconfigured to improve efficiency, and a new “clean-room” was installed to improve the quality of Optics Assemblies. Additionally, under the PBL, all components received a full overhaul at the first depot visit. Coupled with the reliability improvements, fleet maintenance requirements have dropped dramatically. Finally, RCDS has deployed field service engineers to the fleet to provide training and assistance at the intermediate level repair, reducing the need for depot level repair.

RCDS F/A-18 & F-14D Displays PBL Status



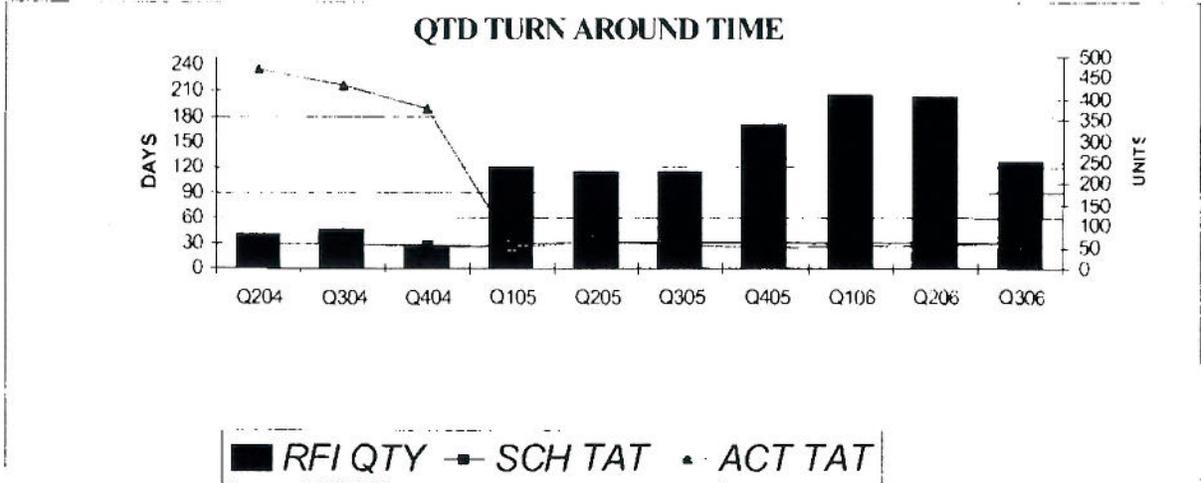
PBL TAT



| | Q204 | Q304 | Q404 | Q105 | Q205 | Q305 | Q405 | Q106 | Q206 | Q306 |
|--------------|------|------|------|------|------|------|------|------|------|------|
| SCH TAT | 47 | 36 | 45 | 55 | 43 | 42 | 41 | 47 | 40 | 45 |
| ACT TAT | 81 | 39 | 53 | 47 | 42 | 43 | 47 | 34 | 29 | 28 |
| JAX PBL GOAL | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| RFI QTY | 18 | 248 | 102 | 103 | 168 | 306 | 402 | 285 | 283 | 77 |

*ACT TAT INCLUDES CONTRACTOR MATERIAL DELAY TIME

PBL TAT



| | Q204 | Q304 | Q404 | Q105 | Q205 | Q305 | Q405 | Q106 | Q206 | Q306 |
|-------------|------|------|------|------|------|------|------|------|------|------|
| SCH TAT | 30 | 30 | 28 | 26 | 32 | 32 | 31 | 30 | 31 | 30 |
| ACT TAT | 236 | 216 | 189 | 28 | 32 | 28 | 24 | 26 | 26 | 32 |
| NI PBL GOAL | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| RFI QTY | 81 | 92 | 56 | 237 | 228 | 226 | 341 | 409 | 407 | 253 |

*ACT TAT INCLUDES CONTRACTOR MATERIAL DELAY TIME

**The Secretary of Defense Performance Based Logistics Awards Program for
Excellence in Performance Based Logistics
Achievements - Section 4**

Proposed Citation: This PBL program epitomizes the Department of Defense objective of optimized operational performance and reduced total life cycle cost. The Cockpit Displays Group PBL Team designed a solution for an aging system that provided improved component availability and delivery response time to the warfighter. In three years, this program has increased supply availability from less than 60% to 100%, reduced delivery response time from 60-90 days to 3-5 days, and virtually eliminated backordered fleet requisitions. All while generating a working capital savings/cost avoidance of \$71M. This is accomplished, in part, by employing “Lean Six Sigma” principles. By embracing the intent of public-private partnerships, the NAVAIR Depots have been able to implement Lean manufacturing processes that increase “time on wing” for the display components. Not only has this solution resulted in increased component availability, reduced delivery response time, and zero backordered fleet requirements, it has also served to unite the Rockwell Collins Display Systems Team and the Naval Supply and Naval Air Systems Commands into a cohesive team that is positioned to provide the war-fighter with outstanding support for years to come. The Cockpit Display Group PBL Team's efforts are considered especially significant, since they tackled the challenges of an aging, out of production system. They applied the innovation, commitment, and teamwork to achieve a record level of support not deemed possible in a pre-PBL environment.